



Water: The Web of Life Interpretive Center

Blank Park Zoo, Des Moines, Iowa

Project Statistics

Area:	22,000 SF (Two levels)
Completion Date:	2001
Construction Cost:	\$2.8 Million

Alvine Aquatics provided design services through design development for the mechanical, electrical and life support systems for this facility.

Animals featured in the facility include red pandas, tamarins, butterflies, bats, lizards, insects, birds and various tropical and fresh water fish.

Water Treatment Systems

- Piping and pumping systems
- Sand filtration
- Water temperature control
- Foam fractionation for reduction of micro-particulates
- Ultraviolet disinfection for algae control
- Reverse osmosis water for plants and makeup water

Mechanical Systems

- Display area air handling capacity is 160,000 cfm, with 4 air changes per hour, with the capability to go to 8 air changes
- Six, 1,750 MBh gas-fired boilers
- Fiberglass-panel roof construction allows 85% sunlight to maintain the critical temperature and light levels
- Extensive water recirculation system to conserve natural resources
- Lower level animal areas required:
- Air handling at 40,000 cfm / 10 air changes per hour
- Use 100% outside air with Q-Dot heat reclaim
- Each room has individual temperature control
- Cooling is provided by two 300-ton chillers

Program Spaces

- Facility exhibits four major climatic habitats (alpine, temperate, tropical and subtropical)
- Fresh and salt water exhibits totaling 30,000 gallons
- Waterfalls, ponds and streams
- Interpretive center
- Mangrove display and bats exhibit on lower level
- Reef exhibit (16,000 gallons)
- Meeting rooms that overlook the tropical environment
- Serving kitchen
- Animal holding areas

